

**UNITED STATES DISTRICT COURT
MIDDLE DISTRICT OF PENNSYLVANIA**

**LOWER SUSQUEHANNA
RIVERKEEPER ASSOCIATION,**

Plaintiffs,

v.

**REPUBLIC SERVICES OF
PENNSYLVANIA, LLC,**

Defendant.

Case No. 1:23-cv-00044-JPW

STIPULATION

The parties stipulate to the facts set forth below:

1. From July 2019 through April 2023, as specified in its NPDES Permit No. PA0046680, Defendant monitored and measured the daily maximum (Max) and monthly average (Avg) amounts of total osmotic pressure (measured as milliosmoles/kilogram (mOsm/kg)) and total boron (measured as a concentration in milligrams/liter (mg/L) and calculated as a mass in pounds/day (lb/d)) in its discharges of landfill leachate from Outfall 001 into Kreutz Creek.

2. The measured amounts of those parameters during that time are as follows:

	Month	Parameter	Limit	Units	Type	DMR value	% Over
1	7/2/2019	Osmotic pressure, total	183	mOsm/kg	Max	249	36
2	7/31/2019	Osmotic pressure, total	129	mOsm/kg	Avg	<129.5	0
3	8/1/2019	Osmotic pressure, total	183	mOsm/kg	Max	237	30
4	9/30/2019	Osmotic pressure, total	129	mOsm/kg	Avg	191	48
5	9/5/2019	Osmotic pressure, total	183	mOsm/kg	Max	255	39
6	10/3/2019	Osmotic pressure, total	183	mOsm/kg	Max	282	54
7	10/10/2019	Osmotic pressure, total	183	mOsm/kg	Max	332	81
8	10/31/2019	Osmotic pressure, total	129	mOsm/kg	Avg	307	138
9	11/14/2019	Osmotic pressure, total	183	mOsm/kg	Max	290	58
10	11/30/2019	Osmotic pressure, total	129	mOsm/kg	Avg	151	17
11	12/31/2019	Osmotic pressure, total	129	mOsm/kg	Avg	136.5	6
12	12/5/2019	Osmotic pressure, total	183	mOsm/kg	Max	262	43

13	1/9/2020	Osmotic pressure, total	183	mOsm/kg	Max	282	54
14	1/23/2020	Osmotic pressure, total	183	mOsm/kg	Max	227	24
15	1/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	254.5	97
16	2/13/2020	Osmotic pressure, total	183	mOsm/kg	Max	308	68
17	2/29/2020	Osmotic pressure, total	129	mOsm/kg	Avg	160.5	24
18	3/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	289	124
19	3/5/2020	Osmotic pressure, total	183	mOsm/kg	Max	210	15
20	3/12/2020	Osmotic pressure, total	183	mOsm/kg	Max	368	101
21	4/2/2020	Osmotic pressure, total	183	mOsm/kg	Max	229	25
22	4/9/2020	Osmotic pressure, total	183	mOsm/kg	Max	262	43
23	4/30/2020	Osmotic pressure, total	129	mOsm/kg	Avg	246	91
24	5/7/2020	Osmotic pressure, total	183	mOsm/kg	Max	241	32
25	5/14/2020	Osmotic pressure, total	183	mOsm/kg	Max	219	20
26	5/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	230	78
27	6/4/2020	Osmotic pressure, total	183	mOsm/kg	Max	288	57
28	6/11/2020	Osmotic pressure, total	183	mOsm/kg	Max	313	71
29	6/30/2020	Osmotic pressure, total	129	mOsm/kg	Avg	301	133
30	7/9/2020	Osmotic pressure, total	183	mOsm/kg	Max	286	56
31	7/30/2020	Osmotic pressure, total	183	mOsm/kg	Max	245	34
32	7/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	266	106
33	8/13/2020	Osmotic pressure, total	183	mOsm/kg	Max	241	32
34	8/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	185	43
35	10/1/2020	Osmotic pressure, total	183	mOsm/kg	Max	296	62
36	10/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	190	47
37	11/12/2020	Osmotic pressure, total	183	mOsm/kg	Max	303	66
38	11/30/2020	Osmotic pressure, total	129	mOsm/kg	Avg	179	39
39	12/3/2020	Osmotic pressure, total	183	mOsm/kg	Max	228	25
40	12/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	138	7
41	1/7/2021	Osmotic pressure, total	183	mOsm/kg	Max	186	2
42	1/14/2021	Osmotic pressure, total	183	mOsm/kg	Max	263	44
43	1/31/2021	Osmotic pressure, total	129	mOsm/kg	Avg	225	74
44	2/28/2021	Osmotic pressure, total	129	mOsm/kg	Avg	231	79
45	2/4/2021	Osmotic pressure, total	183	mOsm/kg	Max	268	46
46	2/11/2021	Osmotic pressure, total	183	mOsm/kg	Max	193	5
47	4/8/2021	Osmotic pressure, total	183	mOsm/kg	Max	274	50
48	4/30/2021	Osmotic pressure, total	129	mOsm/kg	Avg	174	35
49	5/13/2021	Osmotic pressure, total	183	mOsm/kg	Max	209	14
50	5/31/2021	Osmotic pressure, total	129	mOsm/kg	Avg	189	47
51	6/3/2021	Osmotic pressure, total	183	mOsm/kg	Max	318	74
52	6/10/2021	Osmotic pressure, total	183	mOsm/kg	Max	331	81
53	6/30/2021	Osmotic pressure, total	129	mOsm/kg	Avg	325	152

54	8/12/2021	Osmotic pressure, total	183	mOsm/kg	Max	297	62
55	8/31/2021	Osmotic pressure, total	129	mOsm/kg	Avg	180	40
56	9/2/2021	Osmotic pressure, total	183	mOsm/kg	Max	313	71
57	9/9/2021	Osmotic pressure, total	183	mOsm/kg	Max	292	60
58	9/30/2021	Osmotic pressure, total	129	mOsm/kg	Avg	303	135
59	10/7/2021	Osmotic pressure, total	183	mOsm/kg	Max	347	90
60	10/14/2021	Osmotic pressure, total	183	mOsm/kg	Max	193	5
61	10/31/2021	Osmotic pressure, total	129	mOsm/kg	Avg	270	109
62	11/4/2021	Osmotic pressure, total	183	mOsm/kg	Max	281	54
63	11/11/2021	Osmotic pressure, total	183	mOsm/kg	Max	346	89
64	11/30/2021	Osmotic pressure, total	129	mOsm/kg	Avg	314	143
65	12/2/2021	Osmotic pressure, total	183	mOsm/kg	Max	352	92
66	12/9/2021	Osmotic pressure, total	183	mOsm/kg	Max	332	81
67	12/31/2021	Osmotic pressure, total	129	mOsm/kg	Avg	342	165
68	1/6/2022	Osmotic pressure, total	183	mOsm/kg	Max	204	11
69	1/13/2022	Osmotic pressure, total	183	mOsm/kg	Max	322	76
70	1/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	263	104
71	2/3/2022	Osmotic pressure, total	183	mOsm/kg	Max	339	85
72	2/10/2022	Osmotic pressure, total	183	mOsm/kg	Max	291	59
73	2/28/2022	Osmotic pressure, total	129	mOsm/kg	Avg	315	144
74	3/3/2022	Osmotic pressure, total	183	mOsm/kg	Max	248	36
75	3/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	144	12
76	4/28/2022	Osmotic pressure, total	183	mOsm/kg	Max	234	28
77	4/30/2022	Osmotic pressure, total	129	mOsm/kg	Avg	172	33
78	5/5/2022	Osmotic pressure, total	183	mOsm/kg	Max	350	91
79	5/12/2022	Osmotic pressure, total	183	mOsm/kg	Max	286	56
80	5/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	318	147
81	6/2/2022	Osmotic pressure, total	183	mOsm/kg	Max	252	38
82	6/9/2022	Osmotic pressure, total	183	mOsm/kg	Max	317	73
83	6/30/2022	Osmotic pressure, total	129	mOsm/kg	Avg	285	121
84	7/7/2022	Osmotic pressure, total	183	mOsm/kg	Max	281	54
85	7/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	180	40
86	8/4/2022	Osmotic pressure, total	183	mOsm/kg	Max	291	59
87	8/11/2022	Osmotic pressure, total	183	mOsm/kg	Max	291	59
88	8/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	291	126
89	9/1/2022	Osmotic pressure, total	183	mOsm/kg	Max	282	54
90	9/30/2022	Osmotic pressure, total	129	mOsm/kg	Avg	190	47
91	10/6/2022	Osmotic pressure, total	183	mOsm/kg	Max	310	69
92	10/13/2022	Osmotic pressure, total	183	mOsm/kg	Max	261	43
93	10/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	286	122
94	11/3/2022	Osmotic pressure, total	183	mOsm/kg	Max	262	43

95	11/30/2022	Osmotic pressure, total	129	mOsm/kg	Avg	137	6
96	12/1/2022	Osmotic pressure, total	183	mOsm/kg	Max	230	26
97	12/8/2022	Osmotic pressure, total	183	mOsm/kg	Max	459	151
98	12/31/2022	Osmotic pressure, total	129	mOsm/kg	Avg	345	167
99	1/5/2023	Osmotic pressure, total	183	mOsm/kg	Max	268	46
100	1/12/2023	Osmotic pressure, total	183	mOsm/kg	Max	253	38
101	1/31/2023	Osmotic pressure, total	129	mOsm/kg	Avg	261	102
102	2/9/2023	Osmotic pressure, total	183	mOsm/kg	Max	290	58
103	2/28/2023	Osmotic pressure, total	129	mOsm/kg	Avg	230	78
104	3/2/2023	Osmotic pressure, total	183	mOsm/kg	Max	256	40
105	3/9/2023	Osmotic pressure, total	183	mOsm/kg	Max	273	49
106	3/31/2023	Osmotic pressure, total	129	mOsm/kg	Avg	265	105
107	4/30/2023	Osmotic pressure, total	129	mOsm/kg	Avg	293	127
108	4/6/2023	Osmotic pressure, total	183	mOsm/kg	Max	264	44
109	4/13/2023	Osmotic pressure, total	183	mOsm/kg	Max	322	76
110	2/6/2020	Boron, total	23	lb/d	Max	23.1	0
111	2/20/2020	Boron, total	23	lb/d	Max	24.2	5
112	2/27/2020	Boron, total	23	lb/d	Max	26.9	17
113	2/29/2020	Boron, total	17.2	lb/d	Avg	23.4	36
114	3/31/2020	Boron, total	17.2	lb/d	Avg	19.0	10
115	3/26/2020	Boron, total	23	lb/d	Max	23.1	0
116	4/2/2020	Boron, total	23	lb/d	Max	25.6	11
117	4/9/2020	Boron, total	23	lb/d	Max	36.0	57
118	4/23/2020	Boron, total	23	lb/d	Max	30.1	31
119	4/30/2020	Boron, total	17.2	lb/d	Avg	20.8	21
120	5/21/2020	Boron, total	23	lb/d	Max	26.6	16
121	5/28/2020	Boron, total	23	lb/d	Max	29.8	30
122	5/31/2020	Boron, total	17.2	lb/d	Avg	20.2	17
123	6/4/2020	Boron, total	23	lb/d	Max	23.9	4
124	7/16/2020	Boron, total	23	lb/d	Max	35.8	56
125	7/30/2020	Boron, total	23	lb/d	Max	28.8	25
126	7/31/2020	Boron, total	17.2	lb/d	Avg	18.0	5
127	9/10/2020	Boron, total	23	lb/d	Max	32.7	42
128	9/30/2020	Boron, total	17.2	lb/d	Avg	20.4	19
129	10/15/2020	Boron, total	23	lb/d	Max	35.1	53
130	10/22/2020	Boron, total	23	lb/d	Max	25.9	13
131	10/29/2020	Boron, total	23	lb/d	Max	26.8	17
132	10/31/2020	Boron, total	17.2	lb/d	Avg	21.3	24
133	11/12/2020	Boron, total	23	lb/d	Max	35.9	56
134	11/30/2020	Boron, total	17.2	lb/d	Avg	21.18	23
135	12/31/2020	Boron, total	17.2	lb/d	Avg	22.58	31

136	12/17/2020	Boron, total	23	lb/d	Max	31.8	38
137	1/14/2021	Boron, total	23	lb/d	Max	27.5	20
138	1/21/2021	Boron, total	23	lb/d	Max	25.5	11
139	1/31/2021	Boron, total	17.2	lb/d	Avg	25.2	47
140	2/4/2021	Boron, total	23	lb/d	Max	32.9	43
141	2/11/2021	Boron, total	23	lb/d	Max	23.3	1
142	2/19/2021	Boron, total	23	lb/d	Max	24.8	8
143	2/28/2021	Boron, total	17.2	lb/d	Avg	20.4	19
144	3/18/2021	Boron, total	23	lb/d	Max	25.6	11
145	3/25/2021	Boron, total	23	lb/d	Max	37.6	63
146	3/31/2021	Boron, total	17.2	lb/d	Avg	22.53	31
147	4/15/2021	Boron, total	23	lb/d	Max	26.3	14
148	5/31/2021	Boron, total	17.2	lb/d	Avg	19.9	16
149	6/30/2021	Boron, total	17.2	lb/d	Avg	17.7	3
150	10/21/2021	Boron, total	23	lb/d	Max	23.4	2
151	10/31/2021	Boron, total	17.2	lb/d	Avg	20.9	22
152	11/4/2021	Boron, total	23	lb/d	Max	25.6	11
153	11/11/2021	Boron, total	23	lb/d	Max	23.8	3
154	11/23/2021	Boron, total	23	lb/d	Max	27.2	18
155	11/30/2021	Boron, total	17.2	lb/d	Avg	22.2	29
156	12/2/2021	Boron, total	23	lb/d	Max	33.6	46
157	12/9/2021	Boron, total	23	lb/d	Max	29.7	29
158	12/16/2021	Boron, total	23	lb/d	Max	31.1	35
159	12/23/2021	Boron, total	23	lb/d	Max	38.3	67
160	12/31/2021	Boron, total	17.2	lb/d	Avg	30.3	76
161	1/6/2022	Boron, total	23	lb/d	Max	27.5	20
162	1/13/2022	Boron, total	23	lb/d	Max	37.8	64
163	1/20/2022	Boron, total	23	lb/d	Max	30.5	33
164	1/27/2022	Boron, total	23	lb/d	Max	32.4	41
165	1/31/2022	Boron, total	17.2	lb/d	Avg	32.0	86
166	2/3/2022	Boron, total	23	lb/d	Max	30.1	31
167	2/24/2022	Boron, total	23	lb/d	Max	38.1	66
168	2/28/2022	Boron, total	17.2	lb/d	Avg	24.7	44
169	3/10/2022	Boron, total	23	lb/d	Max	28.7	25
170	3/17/2022	Boron, total	23	lb/d	Max	30.2	31
171	3/24/2022	Boron, total	23	lb/d	Max	31.7	38
172	3/31/2022	Boron, total	17.2	lb/d	Avg	29.1	69
173	3/31/2022	Boron, total	23	lb/d	Max	32.7	42
174	4/5/2022	Boron, total	23	lb/d	Max	34.8	51
175	4/14/2022	Boron, total	23	lb/d	Max	31.8	38
176	4/21/2022	Boron, total	23	lb/d	Max	32.5	41

177	4/28/2022	Boron, total	23	lb/d	Max	37.7	64
178	4/30/2022	Boron, total	17.2	lb/d	Avg	34.2	99
179	5/12/2022	Boron, total	23	lb/d	Max	38.7	68
180	5/19/2022	Boron, total	23	lb/d	Max	36.4	58
181	5/26/2022	Boron, total	23	lb/d	Max	29.9	30
182	5/31/2022	Boron, total	17.2	lb/d	Avg	31.8	85
183	6/2/2022	Boron, total	23	lb/d	Max	32.1	40
184	6/16/2022	Boron, total	23	lb/d	Max	48.2	110
185	6/23/2022	Boron, total	23	lb/d	Max	33.8	47
186	6/30/2022	Boron, total	17.2	lb/d	Avg	31.8	85
187	6/30/2022	Boron, total	23	lb/d	Max	26.5	15
188	7/28/2022	Boron, total	23	lb/d	Max	24.4	6
189	7/31/2022	Boron, total	17.2	lb/d	Avg	21.8	27
190	8/31/2022	Boron, total	17.2	lb/d	Avg	21.1	23
191	9/1/2022	Boron, total	23	lb/d	Max	25.4	10
192	9/22/2022	Boron, total	23	lb/d	Max	27.3	19
193	9/29/2022	Boron, total	23	lb/d	Max	34.8	51
194	9/30/2022	Boron, total	17.2	lb/d	Avg	25.2	47
195	10/6/2022	Boron, total	23	lb/d	Max	25.3	10
196	10/13/2022	Boron, total	23	lb/d	Max	31.2	36
197	10/27/2022	Boron, total	23	lb/d	Max	26.2	14
198	10/31/2022	Boron, total	17.2	lb/d	Avg	23.1	34
199	12/15/2022	Boron, total	23	lb/d	Max	31.5	37
200	12/22/2022	Boron, total	23	lb/d	Max	25.9	13
201	12/29/2022	Boron, total	23	lb/d	Max	35.5	54
202	12/31/2022	Boron, total	17.2	lb/d	Avg	25.9	51
203	1/5/2023	Boron, total	23	lb/d	Max	32.2	40
204	1/12/2023	Boron, total	23	lb/d	Max	27.9	21
205	1/19/2023	Boron, total	23	lb/d	Max	32.9	43
206	1/26/2023	Boron, total	23	lb/d	Max	36.7	60
207	1/31/2023	Boron, total	17.2	lb/d	Avg	32.4	88
208	2/2/2023	Boron, total	23	lb/d	Max	37.2	62
209	2/9/2023	Boron, total	23	lb/d	Max	23.4	2
210	2/23/2023	Boron, total	23	lb/d	Max	39.6	72
211	2/28/2023	Boron, total	17.2	lb/d	Avg	26.4	53
212	3/2/2023	Boron, total	23	lb/d	Max	30.8	34
213	3/9/2023	Boron, total	23	lb/d	Max	30.7	33
214	3/16/2023	Boron, total	23	lb/d	Max	25.1	9
215	3/23/2023	Boron, total	23	lb/d	Max	26.7	16
216	3/28/2023	Boron, total	23	lb/d	Max	27.6	20
217	3/31/2023	Boron, total	17.2	lb/d	Avg	28.2	64

218	4/13/2023	Boron, total	23	lb/d	Max	42.1	83
219	2/6/2020	Boron, total	5.52	mg/L	Max	18.6	237
220	2/13/2020	Boron, total	5.52	mg/L	Max	13.4	143
221	2/20/2020	Boron, total	5.52	mg/L	Max	16.2	193
222	2/27/2020	Boron, total	5.52	mg/L	Max	14.5	163
223	2/29/2020	Boron, total	4.12	mg/L	Avg	15.68	281
224	3/31/2020	Boron, total	4.12	mg/L	Avg	13.88	237
225	3/5/2020	Boron, total	5.52	mg/L	Max	13.0	136
226	3/12/2020	Boron, total	5.52	mg/L	Max	14.5	163
227	3/20/2020	Boron, total	5.52	mg/L	Max	13.0	136
228	3/26/2020	Boron, total	5.52	mg/L	Max	15.0	172
229	4/2/2020	Boron, total	5.52	mg/L	Max	17.5	217
230	4/9/2020	Boron, total	5.52	mg/L	Max	20.0	262
231	4/16/2020	Boron, total	5.52	mg/L	Max	14.0	154
232	4/23/2020	Boron, total	5.52	mg/L	Max	22.0	299
233	4/30/2020	Boron, total	4.12	mg/L	Avg	15.42	274
234	5/7/2020	Boron, total	5.52	mg/L	Max	21.5	289
235	5/14/2020	Boron, total	5.52	mg/L	Max	16.9	206
236	5/21/2020	Boron, total	5.52	mg/L	Max	17.0	208
237	5/28/2020	Boron, total	5.52	mg/L	Max	21.0	280
238	5/31/2020	Boron, total	4.12	mg/L	Avg	18.88	358
239	6/4/2020	Boron, total	5.52	mg/L	Max	17.5	217
240	6/11/2020	Boron, total	5.52	mg/L	Max	8.5	54
241	6/30/2020	Boron, total	4.12	mg/L	Avg	7.25	76
242	7/9/2020	Boron, total	5.52	mg/L	Max	16.0	190
243	7/16/2020	Boron, total	5.52	mg/L	Max	22.0	299
244	7/23/2020	Boron, total	5.52	mg/L	Max	14.0	154
245	7/30/2020	Boron, total	5.52	mg/L	Max	19.0	244
246	7/31/2020	Boron, total	4.12	mg/L	Avg	15.02	265
247	8/6/2020	Boron, total	5.52	mg/L	Max	11.0	99
248	8/13/2020	Boron, total	5.52	mg/L	Max	12.0	117
249	8/20/2020	Boron, total	5.52	mg/L	Max	20.0	262
250	8/27/2020	Boron, total	5.52	mg/L	Max	15.0	172
251	8/31/2020	Boron, total	4.12	mg/L	Avg	14.5	252
252	9/3/2020	Boron, total	5.52	mg/L	Max	11.0	99
253	9/10/2020	Boron, total	5.52	mg/L	Max	25.0	353
254	9/17/2020	Boron, total	5.52	mg/L	Max	14.0	154
255	9/24/2020	Boron, total	5.52	mg/L	Max	14.0	154
256	9/30/2020	Boron, total	4.12	mg/L	Avg	16.0	288
257	10/1/2020	Boron, total	5.52	mg/L	Max	19.0	244
258	10/9/2020	Boron, total	5.52	mg/L	Max	11.0	99

259	10/15/2020	Boron, total	5.52	mg/L	Max	18.0	226
260	10/22/2020	Boron, total	5.52	mg/L	Max	14	154
261	10/29/2020	Boron, total	5.52	mg/L	Max	14.0	154
262	10/31/2020	Boron, total	4.12	mg/L	Avg	15.2	269
263	11/5/2020	Boron, total	5.52	mg/L	Max	6.4	16
264	11/12/2020	Boron, total	5.52	mg/L	Max	21.0	280
265	11/19/2020	Boron, total	5.52	mg/L	Max	14.0	154
266	11/25/2020	Boron, total	5.52	mg/L	Max	14.0	154
267	11/30/2020	Boron, total	4.12	mg/L	Avg	13.85	236
268	12/3/2020	Boron, total	5.52	mg/L	Max	12.0	117
269	12/10/2020	Boron, total	5.52	mg/L	Max	15.0	172
270	12/17/2020	Boron, total	5.52	mg/L	Max	18.0	226
271	12/23/2020	Boron, total	5.52	mg/L	Max	15.0	172
272	12/30/2020	Boron, total	5.52	mg/L	Max	14.0	154
273	12/31/2020	Boron, total	4.12	mg/L	Avg	14.80	259
274	1/7/2021	Boron, total	5.52	mg/L	Max	16.0	190
275	1/14/2021	Boron, total	5.52	mg/L	Max	17.0	208
276	1/21/2021	Boron, total	5.52	mg/L	Max	17.0	208
277	1/28/2021	Boron, total	5.52	mg/L	Max	16.0	190
278	1/31/2021	Boron, total	4.12	mg/L	Avg	16.50	300
279	2/4/2021	Boron, total	5.52	mg/L	Max	20.0	262
280	2/11/2021	Boron, total	5.52	mg/L	Max	15.0	172
281	2/19/2021	Boron, total	5.52	mg/L	Max	18.0	226
282	2/25/2021	Boron, total	5.52	mg/L	Max	15.0	172
283	2/28/2021	Boron, total	4.12	mg/L	Avg	17.00	313
284	3/4/2021	Boron, total	5.52	mg/L	Max	13.0	136
285	3/11/2021	Boron, total	5.52	mg/L	Max	7.8	41
286	3/18/2021	Boron, total	5.52	mg/L	Max	19.0	244
287	3/25/2021	Boron, total	5.52	mg/L	Max	23.0	317
288	3/31/2021	Boron, total	4.12	mg/L	Avg	15.70	281
289	4/1/2021	Boron, total	5.52	mg/L	Max	21.0	280
290	4/8/2021	Boron, total	5.52	mg/L	Max	22.0	299
291	4/15/2021	Boron, total	5.52	mg/L	Max	20.0	262
292	4/22/2021	Boron, total	5.52	mg/L	Max	24.0	335
293	4/29/2021	Boron, total	5.52	mg/L	Max	14.0	154
294	4/30/2021	Boron, total	4.12	mg/L	Avg	20.20	390
295	5/6/2021	Boron, total	5.52	mg/L	Max	18.0	226
296	5/13/2021	Boron, total	5.52	mg/L	Max	18.0	226
297	5/20/2021	Boron, total	5.52	mg/L	Max	18.0	226
298	5/27/2021	Boron, total	5.52	mg/L	Max	20.0	262
299	5/31/2021	Boron, total	4.12	mg/L	Avg	18.50	349

300	6/3/2021	Boron, total	5.52	mg/L	Max	16.0	190
301	6/10/2021	Boron, total	5.52	mg/L	Max	16.0	190
302	6/17/2021	Boron, total	5.52	mg/L	Max	16.0	190
303	6/24/2021	Boron, total	5.52	mg/L	Max	16.0	190
304	6/30/2021	Boron, total	4.12	mg/L	Avg	16.00	288
305	7/1/2021	Boron, total	5.52	mg/L	Max	9.8	78
306	7/8/2021	Boron, total	5.52	mg/L	Max	20.0	262
307	7/15/2021	Boron, total	5.52	mg/L	Max	13.0	136
308	7/22/2021	Boron, total	5.52	mg/L	Max	11.0	99
309	7/29/2021	Boron, total	5.52	mg/L	Max	14.0	154
310	7/31/2021	Boron, total	4.12	mg/L	Avg	13.56	229
311	8/5/2021	Boron, total	5.52	mg/L	Max	13.0	136
312	8/12/2021	Boron, total	5.52	mg/L	Max	11.0	99
313	8/19/2021	Boron, total	5.52	mg/L	Max	13.0	136
314	8/26/2021	Boron, total	5.52	mg/L	Max	17.0	208
315	8/31/2021	Boron, total	4.12	mg/L	Avg	13.50	228
316	9/2/2021	Boron, total	5.52	mg/L	Max	15.0	172
317	9/9/2021	Boron, total	5.52	mg/L	Max	19.0	244
318	9/17/2021	Boron, total	5.52	mg/L	Max	17.0	208
319	9/23/2021	Boron, total	5.52	mg/L	Max	20.0	262
320	9/30/2021	Boron, total	4.12	mg/L	Avg	17.80	332
321	9/30/2021	Boron, total	5.52	mg/L	Max	18.0	226
322	10/7/2021	Boron, total	5.52	mg/L	Max	19.0	244
323	10/14/2021	Boron, total	5.52	mg/L	Max	22.0	299
324	10/21/2021	Boron, total	5.52	mg/L	Max	20.0	262
325	10/28/2021	Boron, total	5.52	mg/L	Max	19.0	244
326	10/31/2021	Boron, total	4.12	mg/L	Avg	20.00	385
327	11/4/2021	Boron, total	5.52	mg/L	Max	25.0	353
328	11/11/2021	Boron, total	5.52	mg/L	Max	27.0	389
329	11/18/2021	Boron, total	5.52	mg/L	Max	16.0	190
330	11/23/2021	Boron, total	5.52	mg/L	Max	24.0	335
331	11/30/2021	Boron, total	4.12	mg/L	Avg	23.00	458
332	12/2/2021	Boron, total	5.52	mg/L	Max	24.0	335
333	12/9/2021	Boron, total	5.52	mg/L	Max	23.0	317
334	12/16/2021	Boron, total	5.52	mg/L	Max	24.0	335
335	12/23/2021	Boron, total	5.52	mg/L	Max	25.0	353
336	12/30/2021	Boron, total	5.52	mg/L	Max	25.0	353
337	12/31/2021	Boron, total	4.12	mg/L	Avg	24.20	487
338	1/6/2022	Boron, total	5.52	mg/L	Max	22.0	299
339	1/13/2022	Boron, total	5.52	mg/L	Max	25.0	353
340	1/20/2022	Boron, total	5.52	mg/L	Max	21.2	284

341	1/27/2022	Boron, total	5.52	mg/L	Max	24.0	335
342	1/31/2022	Boron, total	4.12	mg/L	Avg	23.05	459
343	2/3/2022	Boron, total	5.52	mg/L	Max	21.0	280
344	2/10/2022	Boron, total	5.52	mg/L	Max	21.0	280
345	2/17/2022	Boron, total	5.52	mg/L	Max	17.0	208
346	2/24/2022	Boron, total	5.52	mg/L	Max	18.0	226
347	2/28/2022	Boron, total	4.12	mg/L	Avg	19.25	367
348	3/3/2022	Boron, total	5.52	mg/L	Max	18.0	226
349	3/10/2022	Boron, total	5.52	mg/L	Max	20.0	262
350	3/17/2022	Boron, total	5.52	mg/L	Max	20.0	262
351	3/24/2022	Boron, total	5.52	mg/L	Max	22.0	299
352	3/31/2022	Boron, total	4.12	mg/L	Avg	20.40	395
353	3/31/2022	Boron, total	5.52	mg/L	Max	22.0	299
354	4/5/2022	Boron, total	5.52	mg/L	Max	23.0	317
355	4/14/2022	Boron, total	5.52	mg/L	Max	21.0	280
356	4/21/2022	Boron, total	5.52	mg/L	Max	21.0	280
357	4/28/2022	Boron, total	5.52	mg/L	Max	23.0	317
358	4/30/2022	Boron, total	4.12	mg/L	Avg	22.00	434
359	5/5/2022	Boron, total	5.52	mg/L	Max	21.0	280
360	5/12/2022	Boron, total	5.52	mg/L	Max	23.0	317
361	5/19/2022	Boron, total	5.52	mg/L	Max	24.0	335
362	5/26/2022	Boron, total	5.52	mg/L	Max	22.0	299
363	5/31/2022	Boron, total	4.12	mg/L	Avg	22.50	446
364	6/2/2022	Boron, total	5.52	mg/L	Max	21.0	280
365	6/9/2022	Boron, total	5.52	mg/L	Max	24.0	335
366	6/16/2022	Boron, total	5.52	mg/L	Max	29.0	425
367	6/23/2022	Boron, total	5.52	mg/L	Max	21.0	280
368	6/30/2022	Boron, total	4.12	mg/L	Avg	23.40	468
369	6/30/2022	Boron, total	5.52	mg/L	Max	22.0	299
370	7/7/2022	Boron, total	5.52	mg/L	Max	21.0	280
371	7/14/2022	Boron, total	5.52	mg/L	Max	20.0	262
372	7/21/2022	Boron, total	5.52	mg/L	Max	17.0	208
373	7/28/2022	Boron, total	5.52	mg/L	Max	18.0	226
374	7/31/2022	Boron, total	4.12	mg/L	Avg	19.00	361
375	8/4/2022	Boron, total	5.52	mg/L	Max	16.0	190
376	8/11/2022	Boron, total	5.52	mg/L	Max	18.0	226
377	8/18/2022	Boron, total	5.52	mg/L	Max	18.0	226
378	8/25/2022	Boron, total	5.52	mg/L	Max	16.0	190
379	8/31/2022	Boron, total	4.12	mg/L	Avg	17.00	313
380	9/1/2022	Boron, total	5.52	mg/L	Max	21.0	280
381	9/8/2022	Boron, total	5.52	mg/L	Max	25.0	353

382	9/15/2022	Boron, total	5.52	mg/L	Max	19.0	244
383	9/22/2022	Boron, total	5.52	mg/L	Max	22.0	299
384	9/29/2022	Boron, total	5.52	mg/L	Max	24.0	335
385	9/30/2022	Boron, total	4.12	mg/L	Avg	22.20	439
386	10/6/2022	Boron, total	5.52	mg/L	Max	22.0	299
387	10/13/2022	Boron, total	5.52	mg/L	Max	24.0	335
388	10/20/2022	Boron, total	5.52	mg/L	Max	8.8	59
389	10/27/2022	Boron, total	5.52	mg/L	Max	21.0	280
390	10/31/2022	Boron, total	4.12	mg/L	Avg	18.95	360
391	11/3/2022	Boron, total	5.52	mg/L	Max	14.0	154
392	11/17/2022	Boron, total	5.52	mg/L	Max	14.0	154
393	11/22/2022	Boron, total	5.52	mg/L	Max	15.0	172
394	11/30/2022	Boron, total	4.12	mg/L	Avg	11.63	182
395	12/1/2022	Boron, total	5.52	mg/L	Max	15.0	172
396	12/8/2022	Boron, total	5.52	mg/L	Max	16.0	190
397	12/15/2022	Boron, total	5.52	mg/L	Max	20.0	262
398	12/22/2022	Boron, total	5.52	mg/L	Max	21.0	280
399	12/29/2022	Boron, total	5.52	mg/L	Max	22.0	299
400	12/31/2022	Boron, total	4.12	mg/L	Avg	18.80	356
401	1/5/2023	Boron, total	5.52	mg/L	Max	22.0	299
402	1/12/2023	Boron, total	5.52	mg/L	Max	21.0	280
403	1/19/2023	Boron, total	5.52	mg/L	Max	23.0	317
404	1/26/2023	Boron, total	5.52	mg/L	Max	26.0	371
405	1/31/2023	Boron, total	4.12	mg/L	Avg	23.00	458
406	2/2/2023	Boron, total	5.52	mg/L	Max	25.0	353
407	2/9/2023	Boron, total	5.52	mg/L	Max	24.0	335
408	2/16/2023	Boron, total	5.52	mg/L	Max	24.0	335
409	2/23/2023	Boron, total	5.52	mg/L	Max	25.0	353
410	2/28/2023	Boron, total	4.12	mg/L	Avg	24.50	495
411	3/2/2023	Boron, total	5.52	mg/L	Max	20.0	262
412	3/9/2023	Boron, total	5.52	mg/L	Max	21.0	280
413	3/16/2023	Boron, total	5.52	mg/L	Max	24.0	335
414	3/23/2023	Boron, total	5.52	mg/L	Max	19.0	244
415	3/28/2023	Boron, total	5.52	mg/L	Max	18.0	226
416	3/31/2023	Boron, total	4.12	mg/L	Avg	20.40	395
417	4/30/2023	Boron, total	4.12	mg/L	Avg	11.72	184
418	4/6/2023	Boron, total	5.52	mg/L	Max	13.0	136
419	4/13/2023	Boron, total	5.52	mg/L	Max	31.0	462

3. In August 2020, Defendant entered into a Consent Order and Agreement (COA) with the Pennsylvania Department of Environmental Protection (PADEP) and agreed to pay a civil penalty of \$31,300 for past exceedances of its NPDES Permit No. PA0046680. Those exceedances included 100 exceedances of effluent limitations for ammonia-nitrogen, a-Terpineol, total boron, fecal coliform, osmotic pressure, p-Cresol, and total suspended solids that occurred between April 2018 and June 2020 and are listed in Exhibit 1 of the COA. Of the exceedances that occurred between July 2019 and June 2020, twenty-three were exceedances of the effluent limitations for total osmotic pressure and eighteen were exceedances of the effluent limitations for total boron.

4. Those forty-one exceedances for total osmotic pressure and total boron are listed below:

Month	Parameter	Limit	Units	Type	DMR value	% Over
7/31/2019	Osmotic pressure, total	129	mOsm/kg	Avg	<129.5	0
9/30/2019	Osmotic pressure, total	129	mOsm/kg	Avg	191	48
10/31/2019	Osmotic pressure, total	129	mOsm/kg	Avg	307	138
11/30/2019	Osmotic pressure, total	129	mOsm/kg	Avg	151	17
12/31/2019	Osmotic pressure, total	129	mOsm/kg	Avg	136.5	6
1/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	254.5	97
2/29/2020	Osmotic pressure, total	129	mOsm/kg	Avg	161	25
3/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	289	124
4/30/2020	Osmotic pressure, total	129	mOsm/kg	Avg	246	91
5/31/2020	Osmotic pressure, total	129	mOsm/kg	Avg	230	78
6/30/2020	Osmotic pressure, total	129	mOsm/kg	Avg	301	133
7/2/2019	Osmotic pressure, total	183	mOsm/kg	Max	249	36
8/1/2019	Osmotic pressure, total	183	mOsm/kg	Max	237	30
9/5/2019	Osmotic pressure, total	183	mOsm/kg	Max	255	39
10/10/2019	Osmotic pressure, total	183	mOsm/kg	Max	332	81
11/14/2019	Osmotic pressure, total	183	mOsm/kg	Max	290	58
12/5/2019	Osmotic pressure, total	183	mOsm/kg	Max	262	43

1/9/2020	Osmotic pressure, total	183	mOsm/kg	Max	282	54
2/13/2020	Osmotic pressure, total	183	mOsm/kg	Max	308	68
3/12/2020	Osmotic pressure, total	183	mOsm/kg	Max	368	101
4/9/2020	Osmotic pressure, total	183	mOsm/kg	Max	262	43
5/7/2020	Osmotic pressure, total	183	mOsm/kg	Max	241	32
6/11/2020	Osmotic pressure, total	183	mOsm/kg	Max	313	71
2/29/2020	Boron, total	4.12	mg/L	Avg	15.68	281
2/29/2020	Boron, total	17.2	lb/d	Avg	23.4	36
3/31/2020	Boron, total	4.12	mg/L	Avg	13.88	237
4/30/2020	Boron, total	17.2	lb/d	Avg	20.80	21
4/30/2020	Boron, total	4.12	mg/L	Avg	15.42	274
5/31/2020	Boron, total	17.2	lb/d	Avg	20.20	17
5/31/2020	Boron, total	4.12	mg/L	Avg	18.88	358
6/30/2020	Boron, total	4.12	mg/L	Avg	7.25	76
2/6/2020	Boron, total	5.52	mg/L	Max	18.6	237
2/27/2020	Boron, total	23	lb/d	Max	26.9	17
3/26/2020	Boron, total	23	lb/d	Max	23.1	0
3/26/2020	Boron, total	5.52	mg/L	Max	15.0	172
4/9/2020	Boron, total	23	lb/d	Max	36.0	57
4/23/2020	Boron, total	5.52	mg/L	Max	22.0	299
5/7/2020	Boron, total	5.52	mg/L	Max	21.5	289
5/28/2020	Boron, total	23	lb/d	Max	29.8	30
6/4/2020	Boron, total	23	lb/d	Max	23.9	4
6/4/2020	Boron, total	5.52	mg/L	Max	17.5	217

5. In Exhibit 2 of the COA, PADEP imposed stipulated penalties for permit exceedances that occurred after June 2020. PADEP scaled the penalty amounts for exceedances of effluent limitations for total osmotic pressure and total boron to the magnitude of the exceedance, as set forth in the following table:

Monthly Average Exceedances	
<i>Percent over permit limits</i>	
0-33 %	\$250.00
33.1-67 %	\$300.00

67.1-100 %	\$350.00
>100 %	\$400.00
Daily Maximum Exceedances	
<i>Percent over permit limits</i>	
0-33 %	\$125.00
33.1-67 %	\$150.00
67.1-100 %	\$175.00
>100 %	\$200.00

6. Defendant has paid a total of \$77,800.00 to PADEP for the exceedances of the effluent limitations for total osmotic pressure and total boron listed in paragraph 2 above from July 2020 through April 2023, as detailed in the following table:

	Avg 0- 33%	Avg 33.1- 67%	Avg 67.1- 100%	Avg >100%	Max 0- 33%	Max 33.1- 67%	Max 67.1- 100%	Max >100%	
Month	\$250	\$300	\$350	\$400	\$125	\$150	\$175	\$200	Month Subtotal
Jul-20	1			2	1	3		4	\$2,425
Aug-20		1		1	1		1	3	\$1,600
Sep-20	1			1		1	1	3	\$1,575
Oct-20	1	1		1	2	2	1	4	\$2,475
Nov-20	1	1		1	1	2		3	\$1,975
Dec-20	2			1	1	1		5	\$2,175
Jan-21		1	1	1	3	1		4	\$2,375
Feb-21	1		1	1	3	2		4	\$2,475
Mar-21	1			1	1	2		3	\$1,675
Apr-21		1		1	1	1		5	\$1,975
May-21	1	1		1	1			4	\$1,875
Jun-21	1			2			2	4	\$2,200
Jul-21				1			2	3	\$1,350
Aug-21		1		1		1	1	3	\$1,625
Sep-21				2		1	1	5	\$2,125
Oct-21	1			2	2		1	4	\$2,275
Nov-21	1			2	3	1	1	4	\$2,550
Dec-21			1	2	1	3	2	5	\$3,075
Jan-22			1	2	3	2	1	4	\$2,800
Feb-22		1		2	1	2	1	4	\$2,500

Mar-22	1		1	1	2	3		5	\$2,700
Apr-22		1	1	1	1	4		4	\$2,575
May-22			1	2	1	2	2	4	\$2,725
Jun-22			1	2	1	3	1	6	\$3,100
Jul-22	1	1		1	1	1		4	\$2,025
Aug-22	1			2		2		4	\$2,150
Sep-22		2		1	2	2		5	\$2,550
Oct-22		1		2	2	3	1	3	\$2,575
Nov-22	1			1		1		3	\$1,400
Dec-22		1		2	2	2		6	\$2,850
Jan-23			1	2	1	5		4	\$2,825
Feb-23		1	1	1	1	2	1	4	\$2,450
Mar-23		1		2	3	4		5	\$3,075
Apr-23				2		1	2	2	\$1,700
Totals	16	16	10	50	42	60	22	137	\$77,800

So Agreed.

s/James M. Hecker
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